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HYGIENE

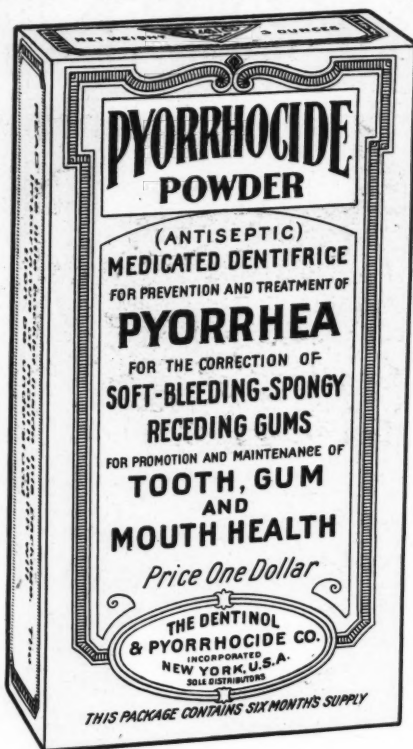
STUDENTS' NUMBER



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How much work and what kind of work a e
pyorrhea patients doing at home?



Do they **scrub** their teeth and gums every morning and evening?

Do they **scrub** their teeth and gums for a period of four minutes?

Do they brush their teeth after each meal?

Do they use small, stiff tooth brushes—brushes with widely separated tufts?

Do they use brushes which gradually taper to the end?

Do they use **PYORRHOCIDE POWDER**?

Skillful work at the chair should be supported by skillful work at home.

Prescribe Pyorrhocide Powder—Compare Results

FREE

Pyorrhocide Powder samples for distribution, a trial bottle of Dentinol for office treatment and a copy of "Causes and Effects of PYORRHEA" mailed on request.

THE DENTINOL & PYORRHOCIDE CO., Inc.

1480 Broadway

New York

ORAL HYGIENE

A JOURNAL FOR DENTISTS

VOLUME XI

MAY, 1921

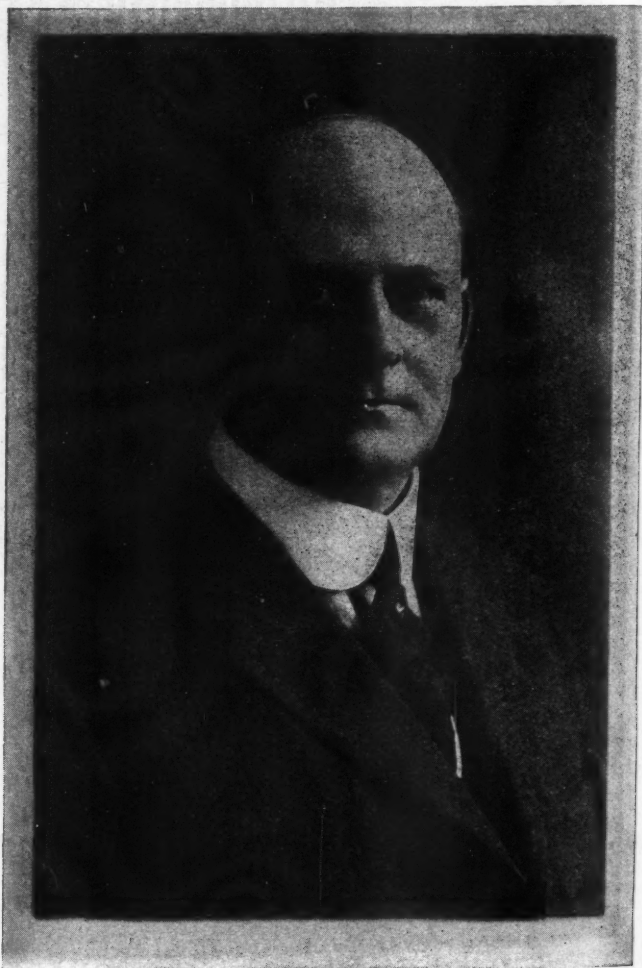
NUMBER 5



BY FONTAINE FOX.
Produced by special arrangement.

Greetings to the C

By H. E. FRIESELL, B.S., D.D.S., LL.D., F.A.C.D.
Dean, School of Dentistry, University of Pittsburgh, Pittsburgh Pa.
President, National Dental Association



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e Class of 1921

IN a few weeks the class of 1921 will receive the stamp of approval of the various dental schools, will be put through the State Board test, and those of its members who are found worthy will enter actively into that professional life for which we trust their college training has been an adequate preparation. You men of 1921 are the first product of the four-year dental course, and your teachers, your profession and the public are all keenly interested in the outcome of your labors.

That field of the healing art, whose care has been assigned to the dental profession, in recent years has assumed an importance that was little dreamed of a decade ago. The dental schools and the dental profession have been making strenuous efforts to keep pace intelligently with the newer and greater obligations that have come to dentistry as a result of those greater responsibilities, and the manner in which the four-year men, of which the class of 1921 is the first representative, shall meet the problems of dentistry means much for our profession and the public we serve.

The number of dental practitioners in America is entirely inadequate to provide the type of service demanded in modern dentistry for a population as large as ours.

There are only 1939 young men and women enrolled in the

45 dental colleges of the United States in the class of 1921, and as the loss from the profession annually amounts to just about that number, your class will not increase the number of registered dentists. On the other hand, the demand for dental services is increasing so rapidly that the great difficulty for most of you recent graduates will not be the acquiring of a practice, but rather will it be the exercise of that judgment and honesty of purpose which will not permit you to attempt to serve more patients than your time and individual skill will permit you to serve properly.

The quality of service you render is far more important than the quantity, and this is a difficult problem to solve for the young practitioner who needs money and who has not been earning any for the past four years. It is not your financial success at the end of the first or second year of practice that will be of primary importance to you in 1931, but rather will it be the habits of practice and the quality of service you have learned to give during these early days that will be an indication of your success as a professional man.

In order then that you may come in close touch with those influences that will help you and keep you facing the right direction, as soon as you have opened your office you should

make application for membership in your local dental society, and through that secure membership in your State Society and the National Dental Association. Most of the advancement that has been made in the dental profession is due to the work of these organizations, and it is one of the most important obligations of a professional

man to maintain membership in the organizations of his profession.

In behalf of the National Dental Association, which enrolls about 65 per cent of the practicing dentists of this country in its membership, I take pleasure in welcoming each member of the class of 1921 into the dental profession.

"To the Keeper of the Gate"

By J. V. BROWN

O Keeper of the "Gate," be on thy guard:
From all invasions keep the "Temple" barred.
Keep thou the "Grinders" clean and bright
And all their contacts firm and tight.

Till thou each root through twist and bend
And leave no spaces at the end
So there's not place for little "Bac"
To build his dangerous poison "Sac."

Open and polish the interdental space.
Leave not for germs a hiding place;
In restorations make the margins bold
That no decay shall find a hold.

Let no infections from the "Portal" flow
To weakened parts where they may grow
In muscle, joint, in heart or spleen
But keep the Temple pure and clean.

Cease not thy vigil night or day
To hold from ravage and decay,
And when at last life's race is run,
You'll hear the welcome call "Well done."

Oral Hygiene for Students

By C. N. JOHNSON, M.A., L.D.S., D.D.S.,
CHICAGO, ILL.

IF every student who is graduated from a dental college in America had a just conception of the value of oral hygiene, and was sufficiently impressed with its importance to carry it out in his daily work when he enters practice, the aggregate result in a few years would be a lessened tendency to dental disease, and an increase of efficiency among the people served by these graduates. But the greatest good in oral hygiene can never come from the services of the dentist alone. Not till the public generally are sufficiently educated to recognize the benefits of oral hygiene, and are willing to cooperate with the dentist and do their share day after day in the way of oral cleanliness, can the best results be obtained. It is therefore as much a matter of education as it is one of technical procedure, and the dentist who is doing the greatest good is the one who, in addition to the services he renders at the chair, is daily inculcating into his patients the ideas of prevention as embodied in oral hygiene.

Our Biggest Duty

By FREDERIC R. HENSHAW, D.D.S.

Dean, Indiana Dental College, Indianapolis, Ind.

MANY years ago, James Whitcomb Riley, the Hoosier Poet, wrote the following inscription in a gift book:—

“Take the best man ever wuz,
Nigh 'bout dead and Heaven in sight,
He don't want no Infinite,

What he wants is—Health—and the Doctor,—

And he's right.”

The demand of the present day from the Doctor (of Medicine and Dentistry) is Health and how it may be obtained and maintained. Therefore the chief duty confronting these professions is the direction of the greatest of all world movements—prevention of disease—for only thus may Health come into its own.

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You are Pioneers

A Message to the Graduates

By J. A. CAMERON HOGGAN, D.D.S., RICHMOND, VA.
Dean, School of Dentistry, Medical College of Virginia

HOW many of you think you might have been George Washington had you lived in 1775? Washington was a pioneer, a great pioneer. You are also pioneers. Dentistry is a new field almost untouched scientifically, and it needs a George Washington!

Have you entered the field of dentistry with any of that thrill with which the pioneer goes out into the undeveloped country—the thrill of great expectation, the determination to discover? The watching world sneers at the profession for its inability to solve the great riddle of immunity. Science smiles at the facial contortions of a dentist trying to think. What are you going to do about it?

It is apparent from the record of dental effort in every community that the dental mind is intent on making a living. It is not centered on making a great discovery, a triumph for the human race, the secret of preventing dental disease, the eradication of dental suffering among the poor, the poor fools and the fools of the poor. Are you going to do anything about it? Or, are you going to be like the man from Aberdeen? Two Scotchmen were going into a place of refreshment—you know the Scot is very thrifty, and one of these two men was

from Aberdeen and the other wasn't buying anything either!

Do not expect very much from the dental profession. They are not buying anything either. They have accepted the rating of the world. Their dental training consisted of repairing the tragic mutilation of teeth by decay. They do not think, but work. They are like the little boy and the dikes of Holland—waiting for some one bigger to come and help! Are you bigger, are you going to be bigger, or, are you going out to fill teeth with gold and fill root canals with arthritis, etc., or will you use some of that chemical sense, some of that bacteriological feeling or physiological intuition which spells the New DENTISTRY? Remember that, hidden somewhere in a combination of these three, lies that mysterious secret for which Humanity of today looks to you with hope.

Immunity! Immunity should be your watchword. It is the thing which will lift dentistry into the plane of the classic. The slogan of dentistry in the past has been *impunity*; to fill teeth, and particularly roots, with anything so long as you get a nice inlay on top of it! A short life, but a merry one while the guilt lasts.

Oh, for a savant! A monk or

a man who will spend his life alone with bacteria, who will become a leper to satisfy his curiosity and stamp his life's work with the generosity of a Christ. Is there any one here with a divine spark or are you all thinking of your belly and a Ford car and post-graduate work in one week for two hundred dollars?

In one of Ontario's little towns lived two dentists. The town was so small they had to live on the same street to be within the city limits. One morning the "leading dentist" coming up from the mail train was startled upon reading the new sign of the other "leading dentist" Dr. Smart, "Specialist in Crown and Bridge Work." He immediately replaced his own sign with one which read "Dr. Smith, Specialist in Everything."

You can not buy a road of vision. You acquire it either from your environment as a boy or through the philosophy of life you gradually form from experience.

This vision is the thing that gives you clear eyes and a pleasant smile no matter what your luck may be; or, it gives you a squint and a red neck.

On the one hand you have the man who is honest with himself and on the other the man who is honest with other people.

Both honest in their way.

The one is moral and the other has morals.

The first will be a thinker and the other will run for alderman.

The ideal of the man with the thick neck is to be a representative citizen—and he is. But he has patterned his life after some other representative citizen. He has been conscientiously as great as some one else.

There is no greater crime than lying to yourself. You know when you are letting down your ideals, when you are too lazy to think a problem out for yourself, to add to your philosophy, to see your road ahead. Instead, you take some one else as your pattern.

Why should you go backward to pick out a pattern for your ideal?

This in itself prevents you from going forward!

Why should you not be a greater man than George Washington? The pedestal on which he stands in relation to his country does not make him great. That was mere chance and the advertisement of a unique situation. George Washington would have been great in any situation and he might have been great and quite unknown.

"Many a flower is born to blush unseen," but no flower ever wasted its sweetness on the desert air.

Ambition

By A. W. THORNTON, L.D.S., MONTREAL, CANADA

*Dean, Faculty of Dentistry, McGill University,
Montreal, Canada*

"I DARE do all becomes a man, who dares do more is none." Man is God's finished product, and as such is capable of reaching to heights, physical, mental and moral, which would seem to make it difficult sometimes to draw a sharp line of demarcation between the human and the Divine.

But the fact that man was created volitional, that is, that man has the power of choice, means not that man *may* or *may not* choose his own destiny, but it means that of necessity man *must* choose his own destiny.

With this thought in mind, the great question arises:

What will be the choice of the men who will graduate at the end of the present academic year from the dental colleges of the United States and Canada?

Another question would naturally arise: What course shall a man pursue, which will produce, or lead to, the highest standard of development?

To this question there is but one answer.

SERVICE must forever be the standard by which a man shall be measured. The world has known but one perfect man, and He said of Himself, "I came not to be ministered unto, but to minister."

Theodore Cuyler once said to a graduating class: "I desire to attain to my own full stature."

May all our men go out with this ambition.
There can be no higher.

"He Profits Most Who Serves Best"

By HENRY L. BANZHAF, B.S., D.D.S., F.A.C.D.

Dean, Marquette University, College of Dentistry,
Milwaukee, Wis.

LET every graduate of 1921 remember this one thing: *that he is but a safe beginner in the practice of dentistry*—nothing more. Let him remember, if he would be successful, that only a small part of his student career has passed.

Let him resolve to be an ardent student all his life to the end that he may contribute something of value to the progress of his profession. There is nothing more discouraging to this progress than the fact that too many graduates throw aside their text-books on graduation day and say "No more of this grind for me. I'm through with study for life." This is the type of graduate who later thoughtlessly adopts the ideas and methods of every faddist in the profession; who falls a victim to the proponents of each succeeding wave of radical opinion and procedure like those that have come and gone so many times during the past thirty years. A dentist, who has due regard for the ethical principles and lofty ideals of his profession, will consider it his duty to endeavor to improve in his work from year to year and to extend the sphere of his influence to the social and civic interests of his community. May the proportion of careless, superficial thinkers in the class of 1921 be smaller than any preceding class; may the proportion of earnest life-long students be greater than any preceding class; may they put the desire to serve above the wish to earn, and thus realize the truth that *he profits most who serves best*.

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The New Dental Graduate

By EUGENE S. TALBOT, M.D., D.D.S., CHICAGO, ILL.

HERE is to the health of the new dental graduate. I love him, I have great respect for him, but I feel sorry for him. He entered the dental college four years ago with the belief that when he graduated he would be able to enter practice and successfully conduct his professional duties. The same thought prevailed one hundred years ago when a jeweler or a blacksmith entered the office of a dentist and remained for six months or a year and then started out to conquer the world. The same thought prevailed fifty years ago when I graduated from a dental school after two years of college training. I believed I was capable of doing justice to my patients because I was a born mechanic. I had served my time as an apprentice in a machine shop and had become a master mechanic and foreman in the Pennsylvania Railroad shops at nineteen. I had taken first prize in college for my mechanical ability—my plate work was always exhibited for years to the students to show what a first course student could accomplish. I, therefore, entered upon practice with considerable assurance. I had been in practice only four years when I discovered that while mechanics were necessary, a successful practice required histology, pathology, and later, bacteriology.

The same question confronts you, my confrères, today. One hundred years ago, fifty years ago and today, all practitioners were good mechanics for the period. One hundred years ago there were no dental colleges. Fifty years ago there were perhaps eight or ten dental schools; today there are fifty-four schools in the United States and Canada.

Fifty years ago only two years were required for graduation. Today four years are required. The same conditions exist today in regard to practice as they did eighty years ago when the first dental school was established. As time goes on and we become better informed it is not mechanics that we require as much as histology, pathology, bacteriology and a broad university education to know what has been accomplished, to think, to reason, to concentrate, to be able to add fact to fact, and then by studious effort add more facts to the sum total of the literature of your profession.

The majority of you have only a high school education. Some have only a common school education. None of you have received the training in histology, pathology or bacteriology necessary to practice your specialty successfully. The reason for this is that the medical side of dentistry has progressed from year to year

far beyond the progress in our dental schools. Today you are entering a profession which is entirely ignorant of the medical side of dental practice.

Having pointed out to you the weak side of your professional training and what the profession now requires, the object of this paper is to try and direct your future training so that you may become a successful practitioner. You will no doubt practice your profession for the next fifty years. The practice of dentistry today will not be the practice of the specialty ten years hence. The dental practitioner then will be a medical graduate. He will not only be well grounded in the general principles of medicine, but he will also be a university graduate. You will have become too old to compete with him. Even today physicians are selecting medical graduates for consultants in obscure pathologic conditions of the mouth.

At this writing, March 8th, I am attending the meeting of the Council on Medical Education, which convenes here in Chicago every year at this time. I enjoy these meetings because the papers are presented by the best educated men in the country, on up-to-date subjects. The discussion at this meeting was confined to "Symposium on Graduate Training in the various Medical Specialties." Each specialty in medicine except dentistry was represented by a paper in which all agreed that two

to three years should be devoted to special study after graduation in medicine to perfect one in the calling he wished to practise. This would apply to dentistry as well as other specialties.

Every graduate in dentistry must decide now whether he wishes to excel in his practice, become an ordinary tooth carpenter, or sink to the level of a laboratory man. If he wishes to excel he must continue his studies for the next three years. He cannot take a full medical course of five years for want of time and money. He can, however, take a correspondence course and educate himself equal to a university graduate. He can also assist in forming study classes in his community and take up histology, pathology, bacteriology and perfect himself equal to a medical graduate.

Never in the history of dentistry have such great changes taken place as will occur in the next ten years and those who graduate from dental schools today will be the sufferers when the great change in education takes place.

This is no idle talk for the handwriting is already on the wall and I can foresee from my past experience what the future has in store for us.

When you start in practice, associate with men (physicians) who are better educated than you are. I adopted this plan and it works out well.

Undertake a few things and carry them out to the highest possibilities. Attend medical

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societies as well as dental. Read medical books and journals as well as dental. Attain

the respect of the medical profession and you will attain success.

Editor ORAL HYGIENE:

Every dentist receiving ORAL HYGIENE has, I am sure, read Dr. Kells' article in December issue. I am glad that one so able as Dr. Kells undertook to discuss Brother John Henry, as Mr. Starr calls him.

Mr. Starr's articles no doubt did some good to the profession. Some of his criticisms were good, especially bartenders' jackets worn by some dentists. I think it is about time to discard the nasty long sleeve jackets and replace them with surgeons' operating gowns in every office. Just imagine thrusting the same sleeve into, say, a dozen patients' faces! If you haven't tried it, do so about 5 P.M. some day. Take a seat and let one of the long-sleeve-jacket dentists work on you and don't forget to notice the sleeve carefully and you will no doubt agree with me.

Let's be dental surgeons in fact as well as in name.

Surgeons' operating gowns cost no more and give the wearer a chance to wash his hands up to his elbows with physicians' soap, as Mr. Starr would have it.

But I most heartily agree with Dr. Kells.

Suppose such stuff as that written by Mr. Starr were put into operation by some of Mr. Starr's admirers and they gave it a tryout.

We most of us know their final conclusions.

I hope that Mr. Starr will give up the address of Dr. John Henry's office so some of us could visit said office.

I think I would, for one, be really interested, although it has been about five years since I have discarded jackets in favor of operating gowns.

What I have been wondering is this: why someone doesn't help the small-town dentist with suggestions—say one that has a practice of from six to ten thousand a year and does not have a lady-in-white, but just himself to receive, seat and do the work, develop X-rays and keep his own books?

We have had enough of the fifteen thousand and the thirty thousand dollar a year dentist, now let's start on the big majority without white lights, buzzers, etc.

Yours very truly,

R. N. MOZISEK, D. D. S.
Conroe, Texas.

"What am I to Do?"

A Word to the Graduate

By GEORGE B. WINTER, D.D.S., St. Louis, Mo.

OUR congratulation is first extended to you upon your entrance into the practice of the noble profession of dentistry. The dean of your respective school and the faculty, no doubt, have given you good advice. For us to take up in this issue the creditable work which they have done, the sacrifices which they have made for you, would fill volumes, but space will not permit. It is needless to say that your dean and dental teachers are individuals in most instances who have made enormous sacrifices to teach and, in most instances, do it because they love the work. Their remuneration is rather meager, and if you will survey all men who are teaching—be it biology, theology, or any other phase of teaching—the remuneration is not in accord with the services rendered. They have, however, done their duty and it behooves you now to do yours. They are not going to practise dentistry for you—they have only shown you the way and in addition have asked you to think clearly along the lines of dentistry.

The question will naturally arise in your mind, what am I to do? What is the best way to analyze my situation so that I may travel the road to success? Possibly the best answer would be to first study

men in your community who have attained success in dentistry and then determine why. Also study the men who have made a failure and determine why. There are two elements to success—one is personality and the other is ability. Both play a very important part in success. You are starting your career and have the imagination and the man who has attained success has the advantage of experience and the happy balance of mature judgment. If you can couple the two you will then attain the success that you have started out for, or the goal that you anticipate reaching. Now, the reason that I ask you to study the successful man is this. You, of course, would not consult a man who is a failure as a banker relative to your financial matters. The same rule would apply to dentistry.

When you have obtained this advice, and no sane conscientious man will fail to give you this advice, the selection of your location is a rather important matter. Go where people want the type of work that you are particularly fitted to render. Go where you feel at home and where you can see your future ten years in advance. Keep in mind that we cannot all work for the wealthy people—the poor need your services like the rich. Strike a

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happy medium and work toward the goal that you anticipate to reach.

Dentistry has an exceptionally bright future for you. There are so many problems today which have been analyzed that three or four years ago we were all in a

quandary about. So much of the grief associated with the work has been eliminated and we are getting down to a more definite technical procedure with the ultimate aim that we are working toward preventive dentistry to be our ultimate goal.

From a Radiodontist's Viewpoint

HOWARD R. RAPER, D.D.S., INDIANAPOLIS, INDIANA

Contributing Editor

A Visit to the Pecos Ruins

(Continued from the April issue)



Fig. 7

Figs. 7 and 8 (next page). Observe the abrasion. Cavity in upper molar. Upper right temporary cuspid alveolus. Unsymmetrical arches. No third molars. (I take the piece of root to be the root of the second bicuspid, but I cannot be *absolutely* certain that it is not a root of a lost first molar. If it is a molar root the upper right third molar is not missing).

DR. E. A. HOOTON is a physical anthropologist. On the scene of operation he is expressively known as the "Bone Man"—a sort of a bone Sherlock Holmes, who picks up an old tibia, long ago discarded by its owner, and tells if the man was true to his wife.

Dr. Hooton expects to be

able to prove the existence of pre-Columbian lues in the Pueblo of Pecos. Whether the Columbus party brought syphilis to America or simply took it away with them has been a much argued question. Hooton's evidence will indicate that lues was an American export.

Dr. Hooton, like Dr. Kidder,

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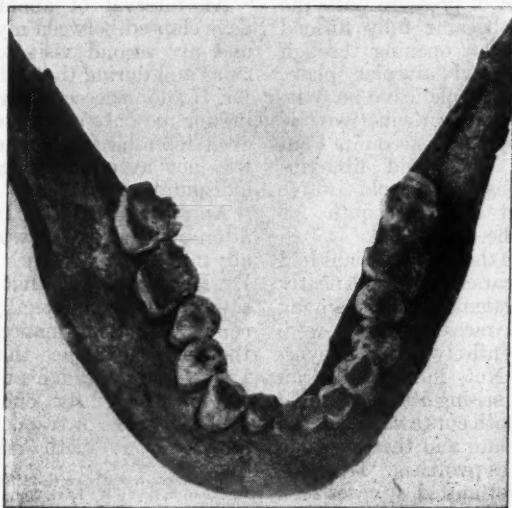


Fig. 8

was a most interesting fellow to talk to. He was good enough to loan me the specimens illustrated here and to answer 9999 questions.

The first thing that struck the writer as he looked at the skulls of the Pecos Indians was the abrasion of the teeth. (Fig. 8.) Specimens, obviously of young Indians, showed the occlusal surfaces worn almost flat. The explanation for this lies in the fact that these Indians ground their corn with metates (me tä' tez) and manos (män' os). (The metate is a stone on which the corn is placed and the mano is a smaller stone with which it is rubbed.) Cornmeal made with metates and manos has considerable sand in it worn off

the grindstones. This sand of course wears the teeth.

Dr. Hooton says that the character of the temporomandibular joint is a contributing factor to this wearing of the teeth. It is well known that a shallow glenoid fossa permits of much lateral movement of the mandible, which would wear the teeth more than would be the case if the joint were more hinge-like.

This wearing down of the teeth often caused death of the pulp. So one finds periapical destruction of bone, due to abscess, of many teeth without carious cavities in them.

How these poor people must have suffered with the toothache—with a septic pulp and no carious cavity! No chance

for relief of pressure until the abscess became fully formed and cut an opening through the external alveolar plate.

These people leave no written account of themselves. If there were such accounts I am certain we would find instructions that cold water be held in the mouth for toothache.

While the Pecos Indians had dental caries it was not nearly so prevalent as it is among modern races and they were almost entirely free from pyorrhea. Not infrequently an abscess arising at the apex of a worn tooth cuts away all of the labial plate and the case then simulates pyorrhea. Dr. Hooton is not misled by cases such as these.

An interval of about ten days elapsed between my first and my second visit to the ruins and during that interval Dr. Hooton succeeded in finding for me only one case that even resembled pyorrhea. It was not at all a typical or indisputable case.*

Apparently the Pecos Indian attempted no dental work at all; there is no evidence of it. Dr. Hooton tells me that some savage tribes pull teeth as a ceremonial performance but there is no evidence that the Pecos Indians did even this.

Very frequently one sees skulls with one or two or three of the front teeth missing.

*In a letter recently received from him, Dr. Hooton says: "I have found several more cases of probable pyorrhea in the museum collections from Pecos."



Fig. 9

Figs. 9 and 10 (next page). The arrow points to an abscess at the apex of the distobuccal root of the upper right first molar. Observe the lingual surface of the crown of the *inverted* upper right cuspid at the side of the nasal opening, marked C.

From the alveolar it is apparent were lost as Dr. Hooton were no monial seems q they ma on acco ods of (How's ton?)

I saw dental r Hooton common eating I mon an eating I having formed It su



Fig. 10

From the appearance of the alveolar process (no alveolus) it is apparent that the teeth were lost during life. Perhaps, as Dr. Hooton says, these teeth were not extracted as a ceremonial performance, but it seems quite possible to me that they may have been sacrificed on account of primitive methods of settling arguments. (How's that, Sherlock Hooton?)

I saw a number of maxillo-dental malformations and Dr. Hooton tells me they are quite common among village, grain-eating Indians. Not so common among nomadic game-eating Indians, the latter having bigger, wider, better-formed dental arches.

It surprised me to find so

many malposed unerupted teeth.

The specimen illustrated here Dr. Hooton believes to be pre-Spanish, i.e., lived before the arrival of the explorer Coronado in 1540. Age of skeletons is estimated by their location in the ruins, by the state of preservation, by the pottery and other things buried with them. In more recent years these Indians became more like white folks and ceased to bury things of value with their dead. The white man is a great teacher.

The specimen illustrated in Figs. 7 to 10 must be at least 400 years old, perhaps much older.

Notice the malposed unerupted upper cuspid. It is



Fig. 11

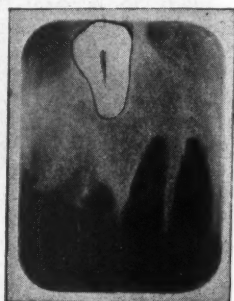


Fig. 12

Figs. 11 and 12. Radiographs of the inverted upper cuspid. See Figs. 9 and 10.

upside down! (Figs. 9 and 10.) I don't believe I ever saw this tooth so completely inverted.

This same specimen shows caries, a dental abscess, congenital absence of the third molars! a slightly saddle arch (Fig. 5) and the characteristic worn surfaces of the teeth. (Figs. 7 to 10.)

Considering the age of both the specimen and his race the maxillo-dental malformations and the missing third molars (see Figs. 14 to 17) become of particular interest. We have come to look upon irregularities of the teeth as a sort of modern accomplishment, yet I have never seen a white man do as well in this field of endeavor as this Indian does with his upper right cuspid. The left cuspid was (it was lost from the skull when I first saw it) also in a semi-horizontal position, but this is an extremely common anomaly.

Doesn't this sound familiar: "As, in the course of evolution, the size of the brain case has

increased there is a consequent degeneracy of the facial bones, and, as we take more concentrated food, we have less need for masticating surface. So Nature, always economical, is eliminating the third molar from our smaller jaws. In our present state of evolution therefore it is not uncommon to find small and malformed third molars and sometimes one or more are entirely missing from the jaws. But the great majority of people do have all four third molars and very few indeed have more than one or two congenitally missing."

And yet here is an Indian of an ancient race with all four third molars congenitally absent. Was he further advanced in the stage of evolution than we are? You answer: I'm busy.

The heavy bone to the lingual (Fig. 8) in the region of the lower bicuspids (mandibular torus) is caused, Dr. Hooton believes, by chewing yucca fibre, a very tough

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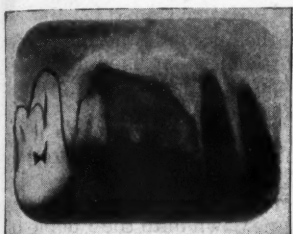


Fig. 13

Fig. 13, left side. Figs. 14, 15, 16 and 17. Radiographs of the third molar regions of the specimen illustrated in Figs. 7 to 10.



Fig. 14

Fig. 15



Fig. 16

Fig. 17

fibre out of which baskets are made. The fibre is chewed to make it pliable. Similar exostosis, Dr. Hooton says, is found in northern tribes who chew rawhide.

Dr. Hooton finds considerable evidence of arthritis deformans. He says he feels

certain that he will be able to establish a relationship between dental abscesses and arthritis deformans and promises to make the investigation and report on it.

The only thing the Pecös Indians knew that remotely resembled a dentist was their

"medicine man," a magician, a miracle man. The day before I made my second visit to the ruins Dr. Kidder had found a cache of a medicine man's armamentarium. It consisted of bone punches, bone tubes and a number of odd-shaped, odd-colored little stones, worn very smooth from use.

Warning: Those with weak stomachs should skip the next two paragraphs.

The treatment accorded a case of suppuration by these old medical men is interesting—and nauseating. A bone tube—that is a hollow tube-like piece of bone was inserted into the suppurating area and the doctor sucked on it (*read fast*) and would then produce from his mouth one of his slick little stones. (It's a wonder he didn't produce his own toe nails.) When the sick Indian saw the slick little, queer little thing taken from him by the wise doctor, why he knew then that all he had to do, was be well again.

And yet there is the germ of truth in this treatment, the glimmering of light, as there is in most of the pathetic things we poor human beings do for ourselves when we are sick. Certainly the draining of a suppurating area is good surgery and not infrequently a foreign body or a sequestrum must come away before there is healing.

Pausing here to think of what to say next, if anything, I imagine a question like this:

"But, Papa, what became of all the hundreds and hundreds of Indians that lived at Pecos when Columbus discovered America?"

"Well, my son, white men sold and traded guns to the Comanche Indians of the north. And the Comanches came down onto the Pueblo of Pecos, which was one of the northmost of the Indian pueblos of the southwest, and they attacked the town and stole grain, and pottery and women."

"Papa, what did they steal the women for?"

"Oh, to wash dishes."

"And every so often thereafter the Comanches came back with their guns and attacked the pueblo and the Pecos people fought them with arrows, and spears and stones, and brave hearts, and built a pitiful little wall, about three feet high, about the houses outside of the main structure and plaza. But arrows and spears and stones and brave hearts cannot win against rifles.

"And then a pestilence broke out among the Pecos people; it was smallpox probably—"

"Why didn't they get vaccinated, Papa?"

"—and finally in 1835 there were only twenty or thirty of the Pecos people left and these few survivors left their doomed city and traveled southwest over the mountains a hundred miles to the Indian Pueblo of Jemez where they had friends. And the Pueblo of Jemez is still inhabited today.

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And some of the descendants of the Pecos people still live there in adobe houses under the beautiful turquoise sky of New Mexico in the great silence of a wonderful contentment."

"Papa, why do they pronounce J-e-m-e-z, Hamus?"

"Well, w-e-l-l. It's time for you to be in bed, young man."

"Hustle along there now. Good night!"

Industrial Dental Service

A \$100,000 machine was idle because the operator was forced to go to a dentist. This incident caused a number of Milwaukee's larger industries to get together to form a dental clinic by which dental education, inspection and service can be given to their employees.

There is little incentive to go to a dentist until forced to do so. It is then often a matter of cure instead of prevention. Dental inspection carried on voluntarily and without obligation to the employe during working hours overcomes this condition and so may start the employes visiting the dentist for little troubles before they become big and serious and more costly troubles.

Among the larger corporations supporting the dental clinic is the Phoenix Knitting Works with 2,000 employes, the Cutler-Hammer Mfg. Co. with over 2,200 employes, and the Chain-Belt Co. with some 1,800, and the Wisconsin Bridge Works with 800 employes, respectively. There are many smaller industrial concerns also supporting the movement.

Although a comparatively recent innovation, 30 per cent of the workers of the Cutler-Hammer Mfg. Co. so far examined during working hours are going to the dentist in their own time. Fifty per cent of the Chain-Belt company's employes so far examined are doing the same thing.

Inspection free of charge during working hours and without obligation to the workers has proved a boon to many. It gives an opportunity to many that otherwise might be almost impossible. From the employes' viewpoint dental service is a worthy policy.

From the employers' viewpoint, this service tends to eliminate disastrous absences from work, lost time and disorganized personnel—emergencies are met by dental work at the cost of the employer—and to create better workers by overcoming a real source of infection and lost efficiency, namely, defective teeth.—*Industrial Power.*

An Investment in Intellectual Securities

By CHAS. K. TURNER, D.D.S., PHILADELPHIA, PA.
Dean, School of Dentistry, University of Pennsylvania

WISE and fortunate indeed is the student of dentistry who regards his professional course as an investment in intellectual securities. Every scrap of knowledge he stores away, every art of technique he masters, every high ideal of professional life he develops becomes the invested capital upon which his future success depends. Its value is derived almost wholly from the extent and character of the efforts he has put forth.

Happily this intellectual treasure once acquired may not be lost through adversity, nor is it diminished when shared with others. It is forever safe and productive, and one of the few human possessions which neither moths nor rust can corrupt nor thieves break through and steal.

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Department of Lay Education

“Your Teeth”

By REA PROCTOR McGEE, D.D.S., M.D., PITTSBURGH, PA.

*Here are four of the stories, prepared for daily and weekly newspapers.
Others of these will be printed in future issues*

Preparedness

ONLY a fool would want another war. The greatest tragedy of war is that war kills the wrong people.

When the day does come, though, we must have the vigor and energy to do our part. No less must we have the energy and vigor to do our part in times of peace. Peace is a war of commercial competition for the markets of the world.

If we are to do our part, every citizen must be able to do his share of the work, no matter what that share may be. We must have nourishment. How can any one be properly nourished on soup?

Whenever you lose your power to masticate you become a “souper.” The earlier you lose the power to masticate your food, the sooner your physical and mental development will stop. With all of our high ideals, all of our advancement, all of our science we still face the stern necessity of eating three meals each day.

All of the millions of people in this world must think first of their food supply. We are anchored to the kitchen.

Why not get the fullest benefit of our food? Take care of your children's teeth and of your own teeth so that the vitamins that hold the secret power of nourishment may be extracted from the food and do their full duty.

In the last analysis, a war is just a fight between two sets of people; one set wishes to take the others' food away from them.

When we neglect our teeth we bring down on our own heads the penalty that a victorious enemy would inflict—we deprive ourselves of the full benefit of our food.

Temporary Teeth

When They Are Abscessed

IF you had a pet rattlesnake around the house it might not do you any harm, but of course you could not reach an agreement upon that subject with the limited brain power of the snake and so you would be taking a big chance that the armistice would be broken.

Your child could have one or even several abscessed temporary teeth with no apparent injury to his general health,

but what assurance have you that the apparently harmless collection of pus is not poisoning the child?

When the abscess really strikes and becomes acute, then there is no question about the damage it does.

Then abscesses may not only cause rheumatism and heart inflammations but the eyes and kidneys and any or all of the bodily structures may be attacked.

When a temporary tooth abscess burrows down the inside of the jaw and gets behind one of the protective walls of fibrous material that separates the layers of muscle in the neck, called the cervical fascias, a very serious infection develops which is frequently fatal.

In order to save the life of the child a very delicate operation must be performed, and that quickly. Don't take chances with abscesses of the temporary teeth. They are not only very dangerous, but the abscessed teeth cannot be used and the good teeth are not allowed to do their work because one tender spot in the mouth will interfere with chewing.

Of course, the best plan to avoid abscesses of the baby teeth is to take good care of children's teeth from the day they appear.

This is the *easy* method and it is also the safe, sure method. Therefore it is the common sense method. Begin at the beginning. Later may be too late.

Head Infections

THE great majority of bodily infections are due to abscesses in some part of the head, usually in the mouth, throat, nose or in the little cavities that are located in a chain from the base of the nose backward to the under surface of the skull.

These cavities are called sinuses.

Whenever there is an abscess that causes absorption of the poisonous material into the blood stream, it is called a focus—a focus of infection.

The reason so much attention is given to mouth infections is not because they are worse than any other infections, but because there are so many opportunities for infection in the mouth.

There are twenty temporary teeth which, in the normal course of life, are followed by thirty-two permanent teeth. Consequently, every one of us has the possibility of fifty-two sources of infection in the mouth alone, unless the teeth, both temporary and permanent, are properly cared for.

Every infection shortens life either very slightly or very considerably. In order to keep a clean blood stream, points of infection must be removed, but how much better it is, and how much more sensible it is, to avoid these infections.

So far as the mouth is concerned, infection can almost always be avoided by proper care, in time.

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The best time to begin preserving your health for the future is now. Just think of the wonderful opportunities ahead of us in this country. Only those who have health and energy can have the success of which they are capable. Pus is the enemy of success.

Filling Materials

WHO invented fillings for teeth and what the first fillings were made of will always remain a mystery.

We know that this work has been done from ancient times, but in recent years there has been such an alarming increase in caries (decay of the teeth) that the prevention of decay and the repair of carious teeth has become an important subject to everyone.

There are three general classes of filling materials; plastics, silicates and metals.

The plastics are the various forms of dental cements and gutta-percha.

The silicates are a form of translucent cement that is an

imitation porcelain. The colors of the teeth can be matched accurately and this material will last well, preserving the tooth and avoiding unsightly disfigurement that would be present if a metal were used in the front of the mouth in a large cavity.

The metals used as filling materials are gold, and amalgam—which is principally silver.

Tin and platinum were used for some years but they are now obsolete. A metal is used where there is great strain on the filling.

Amalgam, which is an alloy of silver made into a paste with mercury, is the most widely used filling in the world. It has done splendid service and is used in those cavities where appearance is a secondary consideration.

Gold is considered the most permanent of the fillings. There are two ways of using gold; one is by malleting pure gold foil into the cavity and thus making the filling in the tooth that it is to protect, the other way is to make the filling outside the mouth from a very accurate wax pattern of the cavity. This is the most modern method and is called an inlay.

Editor ORAL HYGIENE:

On behalf of the Ohio Dental Library Association I desire to express our thanks and appreciation for the support you have given the library, by keeping it on your mailing list for the ORAL HYGIENE during the past year.

We are endeavoring to maintain complete bound files of every dental journal published in the English language, making our library a valuable asset to the dental profession.

Yours very truly,

EDWARD C. MILLS, D.D.S.
Secy. Ohio State Dental Society.

The Dental Student of Tomorrow

By G. S. MILLBERRY, D. D. S., SAN FRANCISCO, CALIF.
Dean, University of California, College of Dentistry

OF hybrid birth, environed in infancy by traditions and practices akin to witchery and knavery; cast out in early youth by an elder sister in the healing art; grown to sturdiness in early manhood through self-confidence and persistence; self-made and self-supported; building character each decade by relieving suffering and restoring health; gathering influence in maturity by bountiful works; bearing well the burdens and glories of its own achievement; looking toward a greater service to human kind.

Such is the foundation upon which the dental student of tomorrow will build his superstructure of duty and responsibility toward human kind, larger in its worthiness than that of any of his fellowmen.

A Plea for More Scientific Work in Dentistry

By ALFRED R. STARR, M.D., D.D.S., NEW YORK, N. Y.

Dean, New York College of Dentistry

SINCE prophylaxis constitutes so important a branch of dental science it behooves the dentist to devote his energies to investigation in that subject.

So little is known regarding the changing character and biochemical relations of the saliva and so little in regard to metabolism or to the influence of the ductless glands on various physiologic and pathologic processes that we have a very large field for investigation. Physiology, histology, chemistry, hygiene, bacteriology, material medica and therapeutics are important factors in such investigation.

The dentist of the future must be well informed in the fundamental sciences if he is going to be a successful practitioner. Manual dexterity and mechanical ability, while very essential qualifications for the dentist, are no longer paramount. In progressive dentistry the day of the artisan is past and that of the scientist is at hand.

It is true that science and art must be combined in the successful practitioner, but the great things, the progressive things, will come from the scientist and not from the artisan. No one can be master of all the sciences in their application to dentistry. Specialization must prevail but the

student of today should aim to accumulate sufficient scientific knowledge to enable him to carry on personal research work in the endeavor to solve some of the problems now confronting the profession.

We still have much to learn in regard to the etiology as well as the treatment of many of the pathologic conditions we have to deal with and their etiology is manifestly the most important consideration. How little we know in regard to the etiology and pathologic histology of that very common disease, caries? A short time ago we thought its etiology was fairly well settled by the researches of Miller and Williams. Now Dr. Howe tells us caries is due to lack of vitamins in the food and the latest theory (Broderick's) is that it is due to the influence of the ductless glands over the amount of lime salts in the body. Broderick even claims that by administration of preparations of those glands we may succeed in preventing caries either by increasing the alkalinity of the saliva, increasing the density of the teeth or by both factors.

Who has yet been able to show conclusively by clinical evidence whether an acid or an alkaline dentrifice is of greater value in caries prevention?

How little we know in re-

gard to the etiology of erosion and of pyorrhœa.

Who can tell how long it is safe to keep a devitalized tooth in the mouth?

How can we be sure that a devitalized tooth is not a menace to the health of the individual even though, by radiograph or otherwise, it manifests no sign of trouble?

It would take considerable clinical experimentation, checking up results by extraction, by bacteriologic and microscopic investigation, to determine the best method of filling pulp canals in ordinary cases. Materials and methods would both require investigation and

we would have to decide whether to endeavor to fill beyond the apex, just to the apex or, as recently suggested by Dr. Clyde Davis, just short of the apex.

These are a few of the problems which confront the dentist of today and hence the plea that the dental student should be made to appreciate the necessity for a good groundwork in the fundamental sciences, followed, after graduation, by special study of the science or sciences for which he may have special aptitude in order that he may be better fitted to cope with these problems in practice.

IN THE JUNE ISSUE

"Dr. Thomas W. Evans—Dentist to the Crowned Heads of Europe," By Eugene S. Talbot, M.D., D.D.S.
Illustrated with interesting photographs.

"The Preservation of the Tooth Pulp," By W. Lowell Crawford, D.D.S.

"The Radiodontist; His Standing in Court," By C. Edmund Kells, D.D.S.

"Home Town Observations," By P. S. Coleman, D.D.S.

and

An Unusual Essay by Howard R. Raper, D.D.S.,
carrying special illustrations printed on enameled paper.

To the Classes of 1921

By WILLIAM RICE, D. M. D., BOSTON, MASS.

Dean, Tufts College Dental School

"COMMENCEMENT!" How full of significance is the word—the beginning your life work with its limitless possibilities.

Your sails are set, your rudder manned, you are about to launch out into the deep.

Aim to develop your powers to the extent of your capacity that you may give full expression to your life.

The world needs you as never before and calls for your help.

Answer the call in a manner becoming to members of a noble profession, the value of whose service cannot be appraised in terms of finance but whose aim is service and whose reward is imperishable.

Be true—be kind—be gentle.

The New Graduate

By W. A. BRIERLEY, D.D.S., DENVER, COLO.

Contributing Editor

THE dental profession is acquiring greater prestige and with it are coming newer and greater responsibilities.

The new graduate has conditions to meet that did not exist a few years ago, but his problems while great are no greater than those that confronted the practitioners of the previous years through whose labors the progress of today is made possible.

The problems of the new graduate, though great, are made the easier through a wider knowledge of the scientific and practical fields of investigation, and time is the great factor that determines the success or failure of any method in practice.

It is to the new graduate that the profession is looking to further the great work now under way and to give to humanity that uplift which a better dentistry can give through a better knowledge of the relation of the mouth and teeth to the body in general.

In various ways the public is being educated to the importance of a clean and healthy mouth and its necessity in maintaining a healthy body.

This new relationship be-

tween the dentist and his patient places grave responsibilities upon the dentist who would live up to his full duty and opportunity.

To serve his patient commendably is the first requisite. That he should receive an adequate compensation for his services is equally true, but not to displace the higher and nobler duty of the healing art with the commercial idea of the dollar.

These newer responsibilities of the dentist in maintaining the health of individuals in the community through the medium of his calling should make him especially careful and thoughtful. He must recognize that dentistry of today signifies more than merely the filling of a cavity in a tooth; that to be doing his full duty he must so attend to the dental necessities that the patient is made the better physically.

The calling of dentistry is a noble one. The possibilities for the progressive and conscientious ones are unlimited. The Profession welcomes the New Graduate and extends the fraternal hand to share the successes and failures that go to make up our portion in life.



To the New Graduate

By I. NORMAN BROOMELL, D.D.S., PHILADELPHIA, PA.

Dean, Philadelphia Dental College

IN selecting dentistry for your life's work, I take it that you have been influenced by the most worthy motives. If you have pictured to yourselves a life of ease, a life devoid of toil, of care and anxiety, if by these you have been induced to enter the ranks of the dental profession, I fear you will be sorely disappointed.

You should realize that the path which you have chosen does not lead to great honors and large fortune. It may not bring with it the popular appreciation, the widespread fame, nor the material results of many other callings, but it takes you to a field rich in the opportunity to lessen the suffering, promote the comfort, and increase the happiness of your fellow man.

If you desire the esteem and honor that an appreciative public is ever ready to award to true merit, by a fair compensation for faithful services, you will not be disappointed; these are within your reach and are perfectly legitimate to your profession.

But beyond and above this there is a certain eminence to which each one should aspire which demands the presence of certain attributes of mind and heart, and if these are not possessed they should eagerly be sought after. It matters not what your natural

power of intellect may be; however happily it may be constituted, you must know that without proper culture, it cannot secure you the position in the profession which I am confident each one of you desires and deserves.

The eminence is not notoriety, it is not popularity, nor yet is it the distinction conferred by friendly or family influence or by wealth. Neither does an honorable success mean the mere acquisition of notoriety, or the accumulation of fortune—both of these have a far more important meaning.

Among the first things you will be called upon to consider, will be the choice of a location. In this I would advise you first, to seek no secluded spot, without the wholesome stimulus of competition. Honest competition will serve to enliven your energies, and advance you in the way of distinction. However crowded the field may appear to be around you, do not despair, but see to it that you fit yourself to cope with your able compeers.

The venerable Prof. Gross when asked by a young physician if he knew of an opening, replied: "An opening; there is no such thing as an opening in the medical profession. Nature abhors an opening as she does a vacuum, and every young man, at all worthy of the name should do the same.

He alone can drive in the wedge. He should be too proud to wait for some one to die, or to abscond, in order that he may rush in and take his place."

The young man or young woman must serve an apprenticeship to his or her profession, and it is well that it should be so, for the interval of leisure which is almost sure to occur in the beginning, provides a season that may well be spent in active preparation more readily to meet successfully the future duties.

You may select a location among your early friends and acquaintances, and if you do, remember that you are like "a prophet in his own country"—of little credit. On the other hand you may take up your abode among strangers, and if you do, you must expect to encounter a people who, ignorant of your qualifications

and merits, are sure, for a time, to view you with suspicion and distrust.

But, be these conditions as they may, if you have determined to fit yourself to hold a worthy place, you need not be fearful of the future. Friends will form around you to aid to your advancement, and sooner or later you will be "greeted with grateful whispers" and voices of praise for your professional successes.

"Be not satisfied to rest upon your present laurels, lest they wither while you yet caress them." Let few hours be wasted in indolent ease; be earnest searchers after truth. Always have on hand something that you are investigating; such employment of your spare moments will add freshness and interest to your life, it will keep the intellect active, and benefit not only yourselves but those with whom you associate.



Pediadontia for the New Graduate

By HAROLD DE W. CROSS, D.M.D., BOSTON, MASS.

Director, The Forsyth Dental Infirmary for Children

WHILE dentistry has been developed to a very high degree of skill, especially during the last few years, practically all the improvements in the art have been along the line of reparative work.

The profession is today better able to diagnose troubles, to treat root canals more efficiently, to insert better contour restorations of all kinds, yet with all of this skill very little progress has been made toward prevention of caries and other diseases of the teeth.

There is at present much interest in what is popularly termed "preventive dentistry" and to a great extent this is merely a term which may be applied to an ideal condition, yet those who have studied the situation realize that preventive dentistry may become a reality providing the right way is taken to accomplish it.

The first thing to recognize is that it is impossible to prevent something which has already happened, therefore it becomes necessary to consider as suitable subjects for preventive dentistry those whose teeth have few or no defects—which consequently must be children, and children no more than six years of age.

Work with children, in addition to being carried on in

school dental clinics and infirmaries, is already being recognized in private practice, and dentists are specializing in this work under the name of *Pediadontia*. At the present time no dental school can give in its clinics experience with children to any extent, on account of being obliged to utilize adult clinics for the purpose of teaching the fundamentals of dental practice. Undergraduate training cannot in all probability be sufficiently modified to permit of attempting to devote any considerable time to experience in child dentistry, either preventive or reparative.

Pediadontia is coming to the front, and as a specialty is bound to be recognized, and opportunities arranged for by the profession for obtaining experience in it, for those who are sufficiently interested, and the only logical way to obtain this experience is through post-graduate work coming after undergraduate training.

With the present type of dental education it is impossible for the dentist to get the best results in a preventive direction except by working in co-relation with pediadontists, as dental caries is so closely associated with, and probably resulting from, mal-nutrition in some form or other.

The dentist of today, with his present training, is only fitted to accomplish certain mechanical repairs. This will undoubtedly be provided for in dental school curricula in the near future, but at present it is possible to obtain experience along these lines only in such hospitals and infirmaries as are doing this phase of the work exclusively, and having the benefits of the coöperation of medical men.

The importance of children's work, and the interest which is developing along this line, will in the near future make it necessary for graduates to have an opportunity somewhere of undertaking children's work.

The phases of clinical work, such as crown and bridge work, inlays, etc., which up to the present time have held such an important position in the dentist's education and experience will, in all probability, in a comparatively short period of time, be relegated to the past, being practised and regarded similarly to the making of

artificial dentures now, appealing only to those dentists whose training has been very largely mechanical, while the more progressive and advanced members of the profession will devote their skill and care to the actual preventive dentistry—dentistry for younger children. This field of work has not yet been given the prominence which its importance and necessity deserve, or which it is believed will be given to it in the near future. It is essentially the only field in which it is practical at present to apply, in any great degree, the term "preventive dentistry" and by some is thought to be the acme of dental aspirations.

We must recognize that the percentage of possible prevention decreases as the individual grows older, and may reach such a low degree as to be negligible, while with the child of two to three years of age the preventive percentage is at the highest mark, so far as its application to the individual is concerned.



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Driven?—or Driver?

A Spizzerinktum

Just a Wee Bit of a Message for the Dental Graduates of 1921

By JOHN PHILLIP ERWIN, D.D.S., PERKASIE, PA.

THERE are two classes of men, the *driven* and the *drivers*.

The *driven* are the sons of Martha; they "of the careful soul and the troubled heart." Fretters! Rushers, blatantly advertising themselves as too small for their jobs. They who because of weak wills and fearful natures, suffer Concern to goad them feverishly on like quarry slaves. Who accept orders from Tom, Dick and Harry. Who meekly step aside that others may pass. Who tremble before necessity, public opinion and financial stress. Fear is their constant advisor. Worry, their common lot. They live

"Like one that on a lonesome road
Doth walk in fear and dread,
And having once turned round
walks on,
And turns no more his head;
Because he knows a frightful fiend
Doth close behind him tread."

The *drivers* are the sons of Mary; they who "seldom bother for they have inherited that good part." Their boon companion is none other than Sir Courage. They hold the reins. They drive their work. No one dare dictate to them. Rather do they command respect and attention. Reason, not instinct, sits enthroned upon their every act. Their will is as adamant. Their lines

fall into pleasant places. Behold in them

"The Monarch mind, the mystery
of commanding,
The birth-hour gift, the art Napoleon,
Of winning, fettering, moulding,
wielding, binding
The hearts of millions 'til they
seem as one."

In welcoming you, O dental neophyte, out of the narrow class room into the busy, battling world, let me urge you, not to go as dumb, driven cattle, fearful and despondent, but instead, to be a determined driver. Hold tightly the reins. Never permit *Concern* to bridle and drive you. Control with your educated senses. Focus your forces. Develop the god, *Courage*, within you. Let it, rather than fear, counsel you. Stand supreme.

Learn that there is no middle course for you to pursue. There are but two poles, the positive and the negative. Either *you* or *your task* is master. Either you drive or are driven. Either you conquer or are conquered.

When two strange men meet, instantly the *fitter* is master and the other his subject. The same is equally true of all your life problems. Shrink fearfully from your task and immediately it tyrannizes you. Appear

meek, timid, or bashful to associates and you will be side-elbowed and imposed upon at every turn. Verily, there is no middle course.

It is natural, and most equitable, that the richest rewards are enjoyed by the conquerors. "To the victor belong the spoils." Golden apples, food alone for gods, are won only by those possessed of unconquered wills. Purple and fine raiment illy grace shoulders of shirkers, dawdlers and cowards. "Who wears the spurs must win them." To win, you must conquer.

My brother, would you win the golden spurs of success? Do you earnestly crave glorious victories? Would you realize your fondest dreams? Then conquer, by absorbing into your life the mighty leaven found in the motto which, more than any other single factor, rendered Napoleon immortal.

It happened in the midst of his memorable campaign when that great general was informed by his officers that insurmountable mountains stood between him and victory. When so informed, Napoleon boldly exclaimed,

"THERE SHALL BE NO ALPS!"

And the moment he delivered that fearless speech, there were no mountains.

To conquer requires courage; faith in self. Faith removed the mountains for Napoleon just as it spanned the Atlantic Ocean for Uncle Sam during the late war; just as it

always has leveled Alps for every conqueror.

Faith creates confidence. Confidence begets encouragement. From faith springs power to accomplish the seeming impossible. Through faith we enter the future with calm assurance. Faith disarms fear. Points the way. Yea, removes mountains. With it all things are possible.

Soon after General Lee surrendered to General Grant, Andrew Johnson and Secretary Stanton issued writs for the arrest of prominent rebels and officers. (It must be remembered that Secretary Stanton was more than a mountain. He was a veritable human Vesuvius. Men generally feared him.) Upon learning of these writs General Grant appeared before Secretary Stanton and said, "Mr. Secretary, when General Lee surrendered to me at Appomattox I gave him my word of honor that neither he nor any of his followers would be disturbed so long as they obeyed their parole of honor. I have learned nothing to cause me to believe that any of them have broken their promises, and have come here to make you aware of that fact, and would suggest that your orders for their arrest be cancelled."

At this, Secretary Stanton flew into a terrific rage. Springing at Grant as though he would devour him, he shouted, "General Grant, are you aware to whom you are talking? I am the Secretary of War!"

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slightest fear, looking Stanton straight in the eye, Grant shot back, "And I am General Grant. Issue those orders at your peril. Good day!"

The orders were not issued.
That is the brand of courage

I would have you possess
when you come to your Alps.
Conquer self. Master your
work. Fear only fear. Drive!
Vanquish! Win! Resolve,
that as for you,
"THERE SHALL BE NO ALPS."

The Tooth Brush as a Cause of Infection

I have several times called attention to the fetishistic veneration in which the tooth brush is held by some recently awakened people. To see the condition of some tooth brushes, one would have no difficulty in believing that this indispensable toilet article oft forms a fruitful source of infection.

Dr. Cobb reported a case in the *Boston Medical and Surgical Journal* which cannot but be of interest to our readers. A man, aged twenty-six, had suffered from repeated attacks of infection of the mouth which always extended to the throat. These attacks were followed by mild rheumatic symptoms. Painting the gums with iodine or guaiacol would control the attack within a few days and the rheumatism was relieved by the salicylates. These attacks occurred not once but many times. There was no evidence of a focus of infection about the teeth, and the case seemed a mystery which would be cleared up only by the removal of all of a set of perfectly good teeth. Finally it occurred to Cobb that the tooth brush might be the offender. This, by the way, was used religiously several times a day. Therefore, Cobb advised that the tooth brush be sterilized by soaking it in alcohol both before and after using. The brush, still wet with alcohol, was used to clean the teeth. This proved to be a solution of the mystery. Dr. Cobb observes that all the germs common to the mouth can and do grow on the bristles, and the victim when next he uses the brush rubs into his gums a culture of the flora of his mouth. It is evident that the long-continued rubbing of such a culture into the tissues of the mouth may have a serious effect.—*The Medical Critic and Guide*.

Trifles

By C. EDMUND KELLS, D.D.S., NEW ORLEANS, LA.

IT is upon the veriest trifles that the fate of man often depends. Probably no one ever heard of two men fighting (outside of the courts) about one million dollars, but many a man has been killed in a dispute over a dime or a quarter.

And so it is right here, and right now, that I want to thank Mr. Starr for having made mention of a *trifle* in his article in ORAL HYGIENE, and the reason I am writing this is because I know this was most helpful to me, and believing it might be of value to others, I wish to *pass it along*; in fact I think it nothing more or less than my duty to do so.

During the past several years I have had more *trouble* with my hands as a result of X-Ray work, than I had during the previous twenty.

This has always been most surprising to me though there was no getting around the *fact*, all right—because, owing to the precautions taken and the shortening of the exposures, I would naturally have thought that the contrary would have obtained. But *those who knew* told me it was the cumulative effect together with the effect of the secondary ray, and I doubtingly accepted their explanation, though I never could be reconciled to it.

Last summer I suddenly developed a very annoying

dermatitis upon three fingers of my right hand and *upon their sides*. That's what got me—how the ray could affect approximating surfaces of these *three* fingers of my right hand! But they did—at least so I was told by those who *should know*.

Besides this dermatitis upon these three fingers, the first joint at the nail of the first finger got "in bad," and trouble also developed in the *frog* of my left thumb. All of this special trouble which I am now reciting was the *edition* of last summer.

In August last, while at the Boston meeting, my hands not being altogether satisfactory, although the fingers of my right hand had healed from that last dermatitis, I decided to consult some of its authorities upon the subject, because I knew that these Boston men had had a good deal of experience with X-ray burns. The fact that some of their patients died was rather discouraging, but I thought I would risk them anyhow.

As a result of this, I had a beautiful skin graft put in my left hand and was thoroughly drilled in what care I should give my hands, and what precautions I should take if I persisted in doing X-ray work, which, naturally, I expected to do.

The skin graft was not only the usual "successful

operation," but, (most fortunately in this case), the patient survived (!) and the hand is in fine condition today.

Now here comes Starr in ORAL HYGIENE and decries the formaldehyde sterilizer. From this episode developed a correspondence with McGee, in which he told me that formaldehyde gave him all kinds of trouble with his hands and he had had a bad dermatitis between his fingers.

Now this was interesting. Dr. McGee evidently had the same kind of trouble with his hands as I had had with mine and he knew his was caused by formaldehyde.

Here then, evidently, was the solution of my problem. The X-ray burns between my fingers were undoubtedly caused by formaldehyde. During these recent years I had been poisoning my hands with formaldehyde from this sterilizer that I had been cracking up — and I didn't know it. Besides this, last summer we

used five per cent formaldehyde for hardening films and I would occasionally do some developing, and that, undoubtedly, caused the trouble with the first finger of my right hand.

And that's not all of it yet. Some traveling salesman (I do not recall his name) told me very recently that he was convinced that some men were subject to *metol poisoning*, and possibly that too may have added to my troubles because we do use metol.

Now with thanks again to Starr and Editor McGee, formaldehyde has been banished from the office. The greatest care is taken in handling metol, and my hands have steadily improved this fall and winter.

Therefore, to all who use formaldehyde and metol, I would say "have a care," and if trouble with your hands develops, do not charge it to the X-ray right off the bat.

War Loss in Population

According to the report of a statistical research conducted by the Society for Studying the Social Consequences of the War, of Copenhagen, ten European nations engaged in the war sustained a potential loss in population of 35,230,000 persons since 1914. Of this number 9,819,000 persons were killed in war; 5,301,000 deaths were due to augmentation of mortality, economic blockades and war epidemics; 20,200,000 fall in birth due to the mobilization of 56,000,000 men.—*Medical Record*.

EDITORIAL

REA PROCTOR MCGEE, D.D.S., M.D., *Editor*

212 Jenkins Building, Pittsburgh, Pennsylvania

The National

THE meeting of the National Dental Association at Milwaukee should be the best that has been held since the Association was organized. The auditorium will provide ample room for twice as many members as have ever attended an N. D. A. meeting.

The publicity committee is not doing its work properly. Somebody is asleep on the job. Don't let the lack of a little publicity prevent your laying plans to attend.

Every progressive dentist should be there and those who are not progressive should go to Milwaukee and get the stimulation of real progress.

Dentistry is advancing more rapidly every day. The personal contact with men from all over the country will do you a world of good even if you don't attend a section meeting the whole time you are there.

This year the chairmen of the sections are going to be 100 per cent. President Friesell says so and those who know Friesell the best know that he goes after his sections as General Pershing went after his divisions.

It is greatly to be hoped that the Oral Hygiene Section will be resurrected this year.

The system of rotation in office in the sections is a mighty poor system.

The time-honored custom of having one man on several committees is also open to criticism.

There are enough members in the N. D. A. to furnish a different man for every job. Let's have it that way. Just look over the names on the back of an N. D. A. letterhead and suggest to those whose names appear more than once that they decide which committee they are most interested in and resign from the others.

There are many men who attend the Association year after year that deserve to be recognized.

It looks as if the National is going to show a wonderful improvement this year. The President is working day and night on definite plans. Suppose we all attend and help Friesell to make this the biggest and best meeting ever.

School Hygiene

IN America there are many great organizations that are devoted to raising the standard of health for the people—all the people.

If all men are born free and equal they do not maintain their equality very long. The invalid has a hard row to hoe.

The Red Cross, the United States Public Health Service, the American Medical Association, the National Dental Association, the American Institute of Homeopathy, the Children's Welfare Bureau and many others are devoting their time, brains and money to the elimination of disease. Every avenue of publicity except one is being used intelligently.

Up-to-date truths are being spread by newspapers, lectures, clinics, pamphlets, moving pictures, charts, models and exhibits, but the one big bet is overlooked.

Think of the opportunity for right teaching that lies in the school physiology. Millions of future citizens are required to learn the contents of these textbooks, required to study and recite and pass examinations upon the chapters that are printed there.

Many of these books were copyrighted in the eighties. None of them have the approval of any of the great health associations.

In all of the school physiologies that I have been able to find there has not been one that showed the slightest evidence of a dentist having furnished the information for the section on the mouth.

Many of the statements that are printed as scientific truths would be ludicrous if it were not for the fact that school children are required to spend human energy in studying and learning such bunk.

The Secretary of the Treasury

HONORABLE ANDREW W. MELLON, recently appointed Secretary of the Treasury, is the founder of the Mellon Institute of Industrial Research of Pittsburgh.

This institution is entirely altruistic in character, since it is operated without profit and is conducted for the purpose of applying science to the solution of industrial problems.

PRACTICAL, useful knowledge is the great factor in putting the world right again.

The classics—the abstruse calculations upon infinity and all of the library full of speculative knowledge—is useful as a mental training and as a container of ultimate grains of wisdom.

Experience in which success is tempered with failure, in the laborious efforts of the individual worker to find the right way to get results, is the basis of practical information.

It remained for Mr. Mellon to realize the necessity for a great institution devoted to harmonizing of ideas and experience—the union of abstract theories and commonplace efforts into scientific and economical methods of doing things.

Foundations like the Mellon Institute will some day be important units in every university.

It is very fortunate that a man of his broad vision and genuine interest in the up-

building of America should be selected to head the Treasury Department.

You say such men should always fill the great offices of America?

Why certainly they should, but only occasionally they do.

Compulsory Health Insurance

ADDED to our present hysteria over moral legislation, we are about to be deluged with compulsory health insurance.

Health is a most desirable asset—but not this kind.

The enormous cost of administration, the injustice to physicians, dentists and pharmacists, the death of professional ambition and the swarms of political vermin who will pry into your most intimate affairs would be a final blow to our vaunted liberty—which is so rapidly slipping from us.

Some years ago France presented the Statue of Liberty to America as a token of the admiration of the great European republic for the liberties of the great American republic.

If we are not careful, France will feel called upon to present us a casket for the lady.



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Dr. J. F. Stephen, President Harding's dentist, photographed with Dr. C. E. Sawyer, the Harding family physician. This picture was taken in Washington recently. Dr. Stephen stands at the right.

Laffodontia

If you have a story that appeals to you as funny, send it in to the editor. He *may* print it—but he won't send it back!

Phrenologist—Your son has a pronounced mathematical bump.

The Son—That's where papa hit me for being at the bottom of the arithmetic class.

Freddie: "Mamma, the teacher is going to show us the eclipse of the sun today."

Mother: "All right, Freddie, but I don't want you to go too close."

Friend—Is your husband saving up for a rainy day?

Wife—He's a perfect Noah! He's saving up for the flood.

He was—well, very, very careful. Each week he would go over his wife's cash account, growling and grumbling. Once he delivered himself of the following:

"Look here, Sarah, 'mustard plasters 1 shilling, two teeth extracted 5 shillings.' There's 6 shillings in one week spent for your private pleasure!"

"Have the lawyers made a division of your father's estate yet?"

"I think they must have. I notice they've all got new cars."

"Mother," asked the little boy, "when the fire goes out, where does it go?"

"I don't know, dear," answered

mother. "You might just as well ask me where your father goes when he goes out."

"Always remember," said Tommy's father, "that whatever you attempt, there is only one way to learn, and that is by beginning at the very bottom. There are *no exceptions* to this rule."

"None at all?" queried Tommy.

"None," said father, decisively.

"Then," asked Tommy, "how about swimming?"

Two gentlemen riding on a train were both very much intoxicated.

First gent: What time ish it?

Second gent (after extracting a matchbox from his pocket with much exertion and gazing at it intently): Thursday.

First gent: Great Scott! I mush get off here.

He went into a bootlegger's place,
He thought that he needed a brace.

He painted his nose,
Then the sidewalk arose,
And hit the poor man in the face.